

What is claimed is:

1. A mobile communication system comprising:

a mobile terminal;

a radio base station device communicating with said terminal over a radio link;

5 first control means controlling said radio base station and performing signaling transfer control; and

second control means provided physically separately from said first control means for performing user data transfer control relating to said terminal; wherein:

10 said first control means includes inquiry means for sending an inquiry signal for inquiring about timing information of said second control means, said timing information being required for signaling transfer control and being managed by said second control means; and

15 said second control means includes sending means for sending said timing information to said first control means when said second control means receives said inquiry signal.

2. A mobile communication system comprising:

a mobile terminal;

a radio base station device communicating with said mobile terminal over a radio link;

5 first control means controlling said radio base station and performing signaling transfer control; and

second control means provided physically separately from said first control means for performing user data transfer control relating to said terminal;

wherein:

10      said second control means manages timing information required for signaling transfer control by said first control means and includes sending means for periodically sending said timing information to said first control means.

3. The mobile communication system according to claim 1, wherein said first control means includes correction means for compensating the timing information sent from said second control means.

4. The mobile communication system according to claim 2, wherein said first control means includes correction means for compensating the timing information sent from said second control means.

5. A mobile communication system comprising:

a mobile terminal;

a radio base station device communicating with said mobile terminal over a radio link;

5            first control means controlling said radio base station and performing signaling transfer control; and

second control means provided physically separately from said first control means for performing user data transfer control relating to said terminal; wherein:

10           said mobile communication system includes time information sending means for sending time information;

said first and second control means each includes clock control means for synchronizing the time of a clock built in said first control means and the time of a clock built in said second control means by using said time

15      information;

said first control means includes inquiry means for sending an inquiry

signal for inquiring about timing information of said second control means,  
said timing information being required for signaling transfer control and being  
managed by said second control means;

20           said second control means includes sending means for sending said  
timing information associating with the time of the clock built in said second  
control means to said first control means when said second control means  
receives said inquiry signal; and

            said first control means calculates the current timing information from  
25   said timing information and the time of the clock built in said first control means  
to perform signaling transfer control.

6. A mobile communication system comprising:

a mobile terminal;

a radio base station device communicating with said mobile terminal  
over a radio link;

5           first control means controlling said radio base station and performing  
signaling transfer control; and

second control means provided physically separately from said first  
control means for performing user data transfer control relating to said terminal;  
wherein:

10           said mobile communication system includes time information sending  
means for sending time information;

            said first and second control means each includes clock control means  
for synchronizing the time of a clock built in said first control means and the  
time of a clock built in said second control means by using said time

15   information;

            said second control means manages timing information required for

signaling transfer control by said first control means and includes sending means for associating said timing information with the time of the clock built in said second control means and periodically sending said timing information to  
20 said first control means; and

said first control means calculates the current timing information from said timing information and the time of the clock built in said first control means to perform signaling transfer control.

7. A radio base station control system that controls a radio base station device communicating with a mobile terminal over a radio link and comprises first control means performing signaling transfer control and second control means performing user data transfer control relating to said terminal, said first  
5 and second control means being provided physically separated from each other;

wherein:

said first control means includes inquiry means for sending an inquiry signal for inquiring about timing information of said second control means, said  
10 timing information being required for signaling transfer control and being managed by said second control means; and

said second control means includes sending means for sending said timing information to said first control means when said second control means receives said inquiry signal.

8. A radio base station control system that controls a radio base station device communicating with a mobile terminal over a radio link and comprises first control means performing signaling transfer control and second control means performing user data transfer control relating to said terminal, said first  
5 and second control means being provided physically separated from each

other;

wherein:

said second control means manages timing information required for signaling transfer control by said first control means and includes sending  
10 means for periodically sending said timing information to said first control means.

9. The radio base station control system according to claim 7, wherein said first control means includes correction means for compensating said timing information sent from said second control means.

10. The radio base station control system according to claim 8, wherein said first control means includes correction means for compensating said timing information sent from said second control means.

11. A radio base station control system that controls a radio base station device communicating with a mobile terminal over a radio link and comprises first control means performing signaling transfer control and second control means performing user data transfer control relating to said terminal,  
5 said first and second control means being provided physically separated from each other;

wherein:

said radio base station control system includes a time information sending means for sending time information;

10 said first and second control means each includes clock control means for synchronizing the time of a clock built in said first control means and the time of a clock built in said second control means by using said time information;

said first control means includes inquiry means for sending an inquiry

15      signal for inquiring about timing information of said second control means,  
said timing information being required for signaling transfer control and being  
managed by said second control means;

            said second control means includes sending means for sending said  
timing information associating with the time of the clock built in said second  
20      control means to said first control means when said second control means  
receives said inquiry signal; and

            said first control means calculates the current timing information from  
said timing information and the time of the clock built in said first control means  
to perform signaling transfer control.

            12. A radio base station control system that controls a radio base  
station device communicating with a mobile terminal over a radio link and  
comprises first control means performing signaling transfer control and second  
control means performing user data transfer control relating to said terminal,  
5      said first and second control means being provided physically separated from  
each other;

            wherein:

            said radio base station control system includes a time information  
sending means for sending time information;

10              said first and second control means each includes clock control means  
for synchronizing the time of a clock built in said first control means and the  
time of a clock built in said second control means by using said time  
information;

            said second control means manages timing information required for  
15      signaling transfer control by said first control means and includes sending  
means for associating said timing information with the time of the clock built in

said second control means and periodically sending said timing information to said first control means; and

20       said first control means calculates the current timing information from said timing information and the time of the clock built in said first control means to perform signaling transfer control.

13. A radio base station control method in a radio base station control system that controls a radio base station device communicating with a mobile terminal over a radio link and comprises first control means performing signaling transfer control and second control means performing user data  
5       transfer control relating to said terminal, said first and second control means being provided physically separated from each other;

      wherein:

      inquiry means is provided in said first control means for sending an inquiry signal for inquiring about timing information of said second control  
10       means, said timing information being required for signaling transfer control and being managed by said second control means; and

      sending means is provided in said second control means for sending said timing information to said first control means when said second control means receives said inquiry signal.

14. A radio base station control method in a radio base station control system that controls a radio base station device communicating with a mobile terminal over a radio link and comprises first control means performing signaling transfer control and second control means performing user data  
5       transfer control relating to said terminal, said first and second control means being provided physically separated from each other;

      wherein:

said second control means manages timing information required for signaling transfer control by said first control means, and sending means is  
10 provided in said second control means for periodically sending the timing information to said first control means.

15. The radio base station control method according to claim 13, wherein correction means is provided in said first control means for compensating the timing information sent from said second control means.

16. The radio base station control method according to claim 14, wherein correction means is provided in said first control means for compensating for the timing information sent from said second control means.

17. A radio base station control method in a radio base station control system that controls a radio base station device communicating with a mobile terminal over a radio link and comprises first control means performing signaling transfer control and second control means performing user data  
5 transfer control relating to said terminal, said first and second control means being provided physically separated from each other;

wherein:

time information sending means for sending time information is provided;

10 clock control means is provided in each of said first and second control means for synchronizing the time of a clock built in said first control means and the time of a clock built in said second control means by using said time information;

inquiry means is provided in said first control means for sending an  
15 inquiry signal for inquiring about timing information of said second control means, said timing information being required for signaling transfer control and



being managed by said second control means;

sending means is provided in said second control means for sending  
said timing information associating with the time of the clock built in said  
20 second control means to said first control means when said second control  
means receives said inquiry signal; and

said first control means calculates the current timing information from  
said timing information and the time of the clock built in said first control means  
to perform signaling transfer control.

18. A radio base station control method in a radio base station control  
system that controls a radio base station device communicating with a mobile  
terminal over a radio link and comprises first control means performing  
signaling transfer control and second control means performing user data  
5 transfer control relating to said terminal, said first and second control means  
being provided physically separated from each other;

wherein:

time information sending means for sending time information is  
provided;

10 clock control means is provided in each of said first and second control  
means for synchronizing the time of a clock built in said first control means and  
the time of a clock built in said second control means by using said time  
information;

said second control means manages timing information required for  
15 signaling transfer control by said first control means and includes sending  
means for associating said timing information with the time of the clock built in  
said second control means and periodically sending said timing information to  
said first control means; and

said first control means calculates the current timing information from  
20 said timing information and the time of the clock built in said first control means  
to perform signaling transfer control.